comprise a micro-controller with adaptive charging algorithms to intelligently charge the batteries **110**A and **110**B of the wireless charger **100** when power is applied through the input power connector **135** as well as to control charging of a mobile phone through the transmitter coil **140**, one or more temperature sensors; and/or a current limit sensor.

[0038] FIG. **2** is a diagram illustrating an exploded view of an exemplary wireless charger according to one embodiment. As illustrated in this example, the hard shell or case **110**A-C described above is shown as comprising two halves **205** and **210**. Located between these two halves **205** and **210** of the hard shell or case are the other various components introduced above. Namely, as can be seen in this example, the charger comprises the high capacity, rechargeable lithium ion or lithium polymer batteries **110**A and **110**B. A main board **215** can be seen here and can be used to mount and connect the various components such as the transmitter coil **140**, on/off switch **130**, indicators **130**, input power connector **135**, and other components not visible in this view such as the micro-controller, one or more temperature sensors; and/or a current limit sensor. Also visible in this view are flex circuits **120**A and **120**B providing electrical connection between the batteries **110**A and **110**B and the main board **215** and components mounted thereon. These flex circuits **120**A and **120**B, together with flexible portions of the hard shell or case **110**A-C as described above allow the wireless charger **100** to be at least somewhat flexible and therefore adaptable to various implementations and uses as will be described further below.

[0039] FIG. **3** is a diagram illustrating another view of an exemplary wireless charger according to one embodiment. More specifically, this view illustrates additional details of an exemplary console **125** as introduced above. As can be seen here, the console **125** can comprise an on/off switch **105**, one or more indicators **130** which can comprise single or multi-color LEDs controlled by the micro-controller and lighted to indicate a phone charging status to the user, e.g., lighted to indicate that the phone is currently charging, fully charged, etc. Also visible in this view is the input power connector **135** which can comprise, for example, a Universal Serial Bus (USB) connector, mini-USB connector, or other known connector type through which the wireless charger can be connected with a wall outlet charging adapter or power supply to charge the battery of the wireless charger. Also shown here is a power indicator **305** such as a single or multi-color LED that can be lit to indicate a current power state, e.g., battery at minimum charge, input power on, batteries charging, batteries fully charged, etc. It should be understood that the console **125** illustrated and described here is offered for illustrative purposes only and is not intended to limit the scope of the present invention. Rather, depending upon the exact implementation, the elements and arrangement of the console can vary significantly with more or fewer elements, elements of different types, different positions and/or appearance of those elements, etc. Any such variations are contemplated and considered to be within the scope of the present disclosure.

[0040] FIG. **4** is a block diagram illustrating components of an energy transmitter of a wireless charger according to one embodiment. More specifically, this example illustrates some of the components of the wireless charger **100** mentioned above that may be included within the hard shell or case **115**A-C and mounted, for example, on the main board **215** of the wireless charger **100**. As illustrated here and as introduced above, the main board **215** can have mounted thereon a USB or other power input **135** used to provide power to the wireless charger **100** for charging the batteries **110**A-B and possibly powering the phone or other device. To accomplish this, the main board **215** can have mounted thereon a power management component **405**. Generally speaking, the power management component **405** can comprise electronic components for conditioning and controlling the voltage and current applied to charge the batteries **110**A-B. Additionally, the power management component **405** can condition and control the voltage and current provided to a digital power controller component **410**. According to one embodiment, the power management component **405** may supply power to both the batteries **110**A-B and power controller component **410** at the same time. The digital power controller component **410** can comprise electronic components to drive the transmission coil **140** in a manner, e.g., power level, frequency, etc., appropriate to charge the phone or device to which the wireless charger is inductively coupled. Additional details of these components and their functions will be described below.

[0041] FIG. **5** is a block diagram illustrating additional details of components of a power transmitter of a wireless charger according to one embodiment. As introduced above, the main board **215** can have mounted thereon a USB or other power input **135** used to provide power to the power management component **405**. Generally speaking, the power management component **405** can comprise electronic components for conditioning and controlling the voltage and current applied to charge the batteries **110**A-B. One or more thermistors **510** can also be mounted on the main board **215** or elsewhere in the hard shell or case of the wireless charger **100**. As can be understood by one skilled in the art, the thermistors **510** can provide an indication of a current operating temperature of the wireless charger **100** which can be used by the power management component **405** to reduce power output or even turn off the wireless charger in case of an over-temperature condition and to prevent damage to the components of the wireless charger **100**. One or more LEDs **515** can be connected with the batteries **110**A-B to indicate, for example, a minimum load or charge condition.

[0042] Additionally, the power management component **405** can provide power to drive the transmission coil **140** as described above. As illustrated here, the power management component **405** can provide power to a wireless power controller **525**. In some cases, the power provided to the wireless power controller **525** may first pass through a voltage regulator **520** that can control the voltage from the power management component **405** to a particular level suitable for the wireless power controller **525** e.g., 3.3 volts. This may be the case when the power management component provides a different, e.g., higher, voltage to charge the batteries **110**A-B than is used by the wireless power controller **525**.

[0043] One or more thermistors **530** can also be mounted on the main board **215** or elsewhere in the hard shell or case of the wireless charger **100**. As can be understood by one skilled in the art, the thermistors **530** can provide an indication of a current operating temperature of the wireless charger **100** which can be used by the digital power controller **525** to reduce power output or even turn off the transmission coil in case of an over-temperature condition and to prevent damage to the components of the wireless